

M 29.05.00

CLAIMS

1. A method of operating a communications network supporting a packet-based internetworking protocol

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distributing a tariff for the use of the communications network supporting a packet-based internetworking protocol via the said communications network to a multiplicity of customer terminals connected to the communications network, and

10 calculating using the said tariff a charge for use by the customer terminal of the communications network.

2. A method according to claim 1, in which the step of distributing the tariff

15 includes steps of communicating separately a formula for calculation of network usage charges, and coefficients for use in the said formula.

3. A method according to claim 1 ~~or 2~~, in which the tariff is distributed to customer terminals by multicasting.

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4. A method according to ~~any one of the preceding claims~~, including a further step of distributing to the customer terminals a revised tariff.

25 5. A method according to claim 4, in which the step of distributing a revised tariff comprises communicating revised coefficients for use in the formula previously distributed to the customer terminals.

30 6. A method according to claim 4 ~~or 5~~, including detecting loading of network resources and determining a revised tariff in dependence upon the results of the said step of detecting loading.

M 29.05.00

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7. A method according to claim 6, in which the steps of detecting loading and determining a revised tariff are carried out automatically by a network management platform.

z a 5 8. A method according to ~~anyone of the preceding claims~~ ¹ including communicating to a customer terminal data identifying a first predetermined communications channel, and at the customer terminal subsequently monitoring the said communications channel for communications relating to the said tariff.

10 9. A method according to claim 8, including communicating on the said first communications channel data identifying one or more further communications channels, and the customer terminal subsequently monitors in addition the or each further channel.

15 10. A method according to claim 9, including introducing a new communications channel and identifying the said new communications channel on a communications channel previously identified to the customer terminal depending on loading of the said previously identified communications channel.

a 20 11. A method according to ~~any one of the preceding claims~~ ¹ including communicating encrypted tariff data to the customer terminal, and decrypting the said tariff data within a secure module located at the customer terminal.

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12. A method according to claim 11 including communicating different tariff data on a plurality of different communication channels and providing at a customer terminal a key specific to tariff data on one of the plurality of communication channels.

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a 13. A method according to ~~any one of the preceding claims~~ ¹ including operating a plurality of different services on the communications network,

M 29.05.00

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communicating different tariffs for different respective services to the multiplicity of customer terminals, and selectively varying a respective tariff depending on an operational condition of the respective service.

5 14. A method of operating a communications network comprising:
operating a plurality of different services on the network;
communicating tariffs for the different services to a multiplicity of customer terminals via a common tariff distribution mechanism;
and selectively varying a respective tariff depending on an operational
10 condition of a respective service.

15 15. A method according to ~~any one of the preceding claims~~, including
communicating different tariffs having different respective volatilities to different respective ones of the multiplicity of customer terminals.

16. A method of operating a communications network, including
calculating for each of a multiplicity of customers, using a selected one of a plurality of different tariffs, charges for the use of network resources by a respective customer terminal attached to the network,
20 measuring the loading of network resources, and
varying one or more of the plurality of different tariffs in dependence upon the loading of the network resources, and in which different ones of the plurality of different tariffs have different respective volatilities.

25 17. A method of operating a communications network in which at a point of access to the network a single blocking test only is applied to traffic entering the network .

18. A method of operating a communications network comprising:
30 a) communicating tariff data to a user terminal connected to the network;
b) calculating at the user terminal using the tariff data a charge for traffic communicated between the network and the terminal and making a payment;

M 29.06.00

c) sampling part only of the traffic communicated between users and the network and for the sampled traffic comparing any payments made by users and the payment due according to the tariff.

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19. A method of operating a communications network comprising;

a) establishing contracts between network users and a network operator and storing user contract data;

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b) sampling part only of the traffic to or from a user on the network;

c) comparing sampled traffic with traffic contracted for by the user; and

d) amending the user status when a discrepancy between the sampled parameters and the contracted parameters is detected.

20. A method according to claim 19, in which the step of establishing contracts between network users and the network operator includes making an advance payment for network usage.

21. A method according to claim 19 or 20, in which the step of amending the user status includes fining the user.

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22. A method according to claim 19, in which in step (a) the user transfers a deposit to the network operator, which deposit is debited in step (d) when the discrepancy between the sampled parameters and the contracted parameters is detected.

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23. A method of operating a communications network including distributing a tariff via the communications network to a multiplicity of customer terminals connected to the communications network, and calculating using the said tariff a charge for use by the customer terminal of the communications network,

and in which the step of distributing the tariff includes steps of communicating separately a formula for calculation of network usage charges, and coefficients for use in the said formula.

M 29.05.00

24. A communications network arranged to operate by a method according to any one of the preceding claims.

5 25. A customer terminal adapted for use in a method according to any one of the preceding claims.

26. A customer terminal for use in a communications network, the customer terminal including;

10 a network interface which in use receives tariff information via a communications network;
a store programmed with tariff information received at the said interface;
a meter for measuring use by the customer terminal of the network to which the tariff applies; and

15 a processor connected to the said meter and to the store and arranged to calculate using the said tariff information a network usage charge.

27. A method of operating a communications network substantially as described with respect to the accompanying drawings and in the accompanying paper.

20 28. A communications network substantially as described with respect to the accompanying drawings and in the accompanying paper.

25 29. A method of operating a communications network comprising
a) at a customer terminal measuring network usage;
b) communicating network usage data from the customer terminal to the network operator; and
c) the network operator sampling part only of the traffic communicated

30 between a customer terminal and the network and for the sampled traffic comparing the network usage with the network usage data from the customer terminal and thereby detecting any discrepancy.

M 2005.00

38

30. A method according to ~~any one of~~ claims 1 to 10 including communicating encrypted tariff data to the customer terminal, and decrypting the said tariff data at the customer terminal.

5 31. A method of operating a communications network including;
distributing a tariff via the communications network to a multiplicity of customer terminals connected to the communications network,

measuring at a customer terminal use by the customer terminal of network resources; and

10 calculating, using the results of the said step of measuring together with the said tariff, a charge for use by the customer terminal of the network to which the tariff applies.

15 32. A method of operating a communications network, including automatically varying, depending on network loading as detected at a customer terminal, a tariff for network usage by a customer terminal.

20 33. A method according to ~~any one of the preceding~~ claims, including communicating different tariffs from a plurality of different service providers to a respective customer terminal, at the customer terminal selecting between the service providers, and receiving network services via the selected service provider.

25 34. A method according to ~~any one of claims 19 to 20~~, in which the step of establishing contracts includes associating a traffic conditioning agreement (TCA) with a respective customer.

35. A network arranged to operate by a method according to ~~any one of the~~ claims 29 to 34.

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